

What is claimed is:

1. A channel unit in a digital loop carrier, the channel unit being coupled to at least one telephone via a subscriber line, the at least one telephony device being operable to generate tones, the channel unit comprising:

a tone detector coupled to said subscriber line, said tone detector being operable to detect tones transmitted via said subscriber line to produce an output corresponding to an off-hook control signal;

a processing device coupled to said tone detector and programmable to receive said output of said tone detector, to evaluate said output to determine if said tones corresponding thereto represent said off-hook control signal, said off-hook control signal using at least one of a preselected order, a preselected number and preselected ones of said tones, said processing device being operable to maintain said subscriber line off-hook for a selected period of time if said output indicates said off-hook control signal, and maintain said telephony device off-hook and on-hook in accordance with when a subscriber line requests and terminates, respectively, a connection via said subscriber line using said telephony device, if said programmable device determines that said tone is not said off-hook sequence tone.

2. A channel unit as claimed in claim 1, wherein said processing device is programmable to maintain said subscriber line a user returns off-hook when said output indicates said off-hook control signal regardless of whether a user returns said telephony device to an on-hook position.

3. A channel unit as claimed in claim 1, wherein said tone detector includes a dual-tone multi-frequency tone detector.

4. A channel unit as claimed in claim 1, wherein said tone detector detects frequencies from approximately 650 Hz to approximately 1650 Hz.

5. A channel unit as claimed in claim 1, wherein said processing device includes a microcontroller programmable to process said output and transmit signals to a central office indicating on-hook and off-hook states in accordance with said output.

6. A channel unit as claimed in claim 1, wherein said subscriber line is held in an off-hook position for approximately 30 seconds when said output is determined to comprise said off-hook control signal.

7. A channel unit as claimed in claim 1, wherein said off hook sequence tone is generated by depressing the star (*) key on the keypad of said telephone a selected number of times.

8. A channel unit as claimed in claim 7, wherein said selected number of times for depressing the star key includes three.

9. A method for off-hook management on a subscriber line in a digital loop carrier, comprising the steps of:

detecting tones transmitted from a telephony device via said subscriber line;

maintaining said subscriber line off-hook for a selected period of time despite a user returning said telephony device to an on-hook position if said tones comprise an off-hook control signal; and

operating said subscriber line in one of an off-hook state and an on-hook state in response to said user operation of said telephony device if said programmable device determines said tones do not comprise said off-hook control signal.

10. A method as claimed in claim 9, wherein said maintaining step comprises the step of holding said subscriber line in an off-hook position for approximately 30 seconds.

11. A method as claimed in claim 9, wherein said off-hook control signal is generated by depressing the star (*) key on a keypad of said telephony device a selected number of times.

12. A method as claimed in claim 9, wherein said detecting step is implemented via a tone detector that detects frequencies from approximately 650 Hz to approximately 1650 Hz.

13. A method as claimed in claim 9, wherein said off-hook control signal is generated by transmitting a plurality of dual-tone multi-frequency tones using at least one of a selected number and a selected order of said tones.

14. A method as claimed in claim 9, wherein said off-hook control signal is generated by transmitting a plurality of dual-tone multi-frequency tones using at least one of a selected number and a selected order of said tones.